

What is claimed is:

1. A liquid crystal display having a drive circuit substrate on which a plurality of pixel circuits are arranged in a matrix, a transparent substrate on which a common electrode is formed, and a liquid crystal material held between the drive circuit substrate and the transparent substrate, each of the pixel circuits including a reflective electrode arranged to face the common electrode, a first switching element to transfer a signal when turned on, a second switching element to transfer a signal when turned on, a first capacitor having a first electrode thereof connected to a node between the first switching element and the reflective electrode, to store a signal input through the first switching element when the first switching element is in an ON state and supply the signal to the reflective electrode, and a second capacitor having a first electrode thereof connected to a common node of the first and second switching elements, to store an external signal input through the second switching element when the second switching element is in an ON state, second electrodes of the first and second capacitors of all pixel circuits being commonly connected, the liquid crystal display comprising, on the drive circuit substrate,:

a metal layer formed under reflective electrodes and having an opening, the position of the opening being shifted along the surface of the drive circuit substrate to avoid the positions of gaps between the reflective electrodes of adjacent pixel circuits and block light; and

a wiring layer formed under the metal layer and having first wiring that covers and is electrically connected to a first diffusion region corresponding to the common node of the first and second switching elements and second wiring that covers and is electrically connected to a second diffusion region corresponding to an output part of the first switching

element, the first and second wiring being divided and electrically isolated from each other,

the position of a gap between the first and second wiring dividedly formed in the wiring layer being shifted along the surface of the drive circuit substrate to avoid the position of the opening formed in the metal layer.

5 2. The liquid crystal display of claim 1, wherein the first capacitor comprises the reflective electrode, the metal layer, and an insulating layer formed between the reflective electrode and the metal layer.

10 3. The liquid crystal display of claim 1, further comprising:

15 a signal supply unit configured to supply display signals to the reflective electrodes through the first switching elements, the polarity of the display signals being inverted every vertical scan period, a level range of each of the display signals for a positive polarity period and that for a negative polarity period overlapping such that a black display signal level and white display signal level in the positive polarity period correspond to a white display signal level and black display signal level in the negative polarity period, and in synchronization with the timing of supplying the display signals to the reflective electrodes, supply an alternating current signal to the common electrode, the polarity of the alternating current signal being opposite to that of the display signals and the level of the alternating current signal being greater than the amplitude of a black display signal.

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30 4. A liquid crystal display having a drive circuit substrate on which a plurality of pixel circuits are arranged in a matrix, a transparent substrate on which a common electrode is formed, and a liquid crystal material held between the drive

circuit substrate and the transparent substrate, each of the pixel circuits including a reflective electrode arranged to face the common electrode, a first switching element to transfer a signal when turned on, a second switching element
5 to transfer a signal when turned on, a first capacitor having a first electrode thereof connected to a node between the first switching element and the reflective electrode, to store a signal input through the first switching element when the first switching element is in an ON state and supply the signal to
10 the reflective electrode, and a second capacitor having a first electrode thereof connected to a common node of the first and second switching elements, to store an external signal input through the second switching element when the second switching element is in an ON state, second electrodes of the first and
15 second capacitors of all pixel circuits being commonly connected, the liquid crystal display comprising, on the drive circuit substrate,:.

a metal layer formed under reflective electrodes and having an opening, the position of the opening being shifted
20 along the surface of the drive circuit substrate to avoid the positions of gaps between the reflective electrodes of adjacent pixel circuits and block light; and

first and second contact layers formed under the metal layer, the first contact layer being formed on a first diffusion
25 region corresponding to the common node of the first and second switching elements, the second contact layer being formed on a second diffusion region corresponding to an output part of the first switching element, the first and second contact layers being separately and directly formed on the first and
30 second diffusion regions according to a salicide technique.

5. The liquid crystal display of claim 4, wherein the first capacitor comprises the reflective electrode, the metal layer, and an insulating layer formed between the reflective

electrode and the metal layer.

6. The liquid crystal display of claim 4, further comprising:

5 a signal supply unit configured to supply display signals to the reflective electrodes through the first switching elements, the polarity of the display signals being inverted every vertical scan period, a level range of each of the display signals for a positive polarity period and that for a negative 10 polarity period overlapping such that a black display signal level and white display signal level in the positive polarity period correspond to a white display signal level and black display signal level in the negative polarity period, and in synchronization with the timing of supplying the display 15 signals to the reflective electrodes, supply an alternating current signal to the common electrode, the polarity of the alternating current signal being opposite to that of the display signals and the level of the alternating current signal being greater than the amplitude of a black display signal.

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